

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of: Randal J. Kaufman, et al.

Serial No.: 09/357,273

Filed: July 20, 1999

For: *Irelp, A NOVEL MAMMALIAN PROTEIN AND
GENE ENCODING SAME*

Attorney Docket No.: UMV-1584

Group Art Unit: 1647

Examiner: Hayes, Robert Clinton

U.S. Patent and Trademark Office
Box Sequence
P.O. Box 2327
Arlington, VA 22202

**TRANSMITTAL LETTER FOR DISKETTE OF
SUBSTITUTE SEQUENCE LISTING**

Dear Sir:

Enclosed is a diskette which contains a computer readable form of the substitute Sequence Listing for the patent application filed herewith. The Sequence Listing complies with the requirements of 37 C.F.R. §1.821. The material on this diskette is identical in substance to the paper copy of the Sequence Listing appearing on pages 1-15 which is submitted herewith, as required by 37 CFR §1.821(f). The computer readable form of the Sequence Listing contained on the enclosed diskette is understood to comply with the requirements of §1.824(d).

I hereby certify that this correspondence is deposited with the United States Postal Service as first class mail in an envelope addressed to: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202 on:

September 16, 2002

Date

DeAnn F. Smith, Esq., Reg. No. 36,683

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail, in an envelope addressed to: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202, on the date shown below.

Dated: September 16, 2002

Signature:

(DeAnn F. Smith)

Docket No.: UMV-1584
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Randal J. Kaufman, et al.

Application No.: 09/357273

Group Art Unit: 1647

Filed: July 20, 1999

Examiner: Hayes, Robert Clinton

For: IRE1P, A NOVEL MAMMALIAN PROTEIN,
AND GENE ENCODING SAME

**RESPONSE TO NOTICE TO COMPLY WITH REQUIREMENTS
FOR PATENT APPLICATION CONTAINING NUCLEOTIDE
SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES**

U.S. Patent and Trademark Office
Box Sequence, P.O. Box 2327
Arlington, VA 22202

Dear Sir:

This is in response to the Notice To Comply With Requirements For Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures, dated August 16, 2002. Applicants are submitting their response herewith within the one-month response period set to expire on September 16, 2002.

The U.S. Patent and Trademark Office has indicated in the CFR Problem Report that the "Sequence Listing" was damaged. Submitted herewith in connection with the above-referenced patent application is a substitute, computer readable copy of the Sequence Listing. No new matter has been added to the substitute Sequence Listing.

Applicants respectfully request the above-referenced patent application be placed upon the files for examination.

Applicants believe no fee is due with this response. However, if a fee is due, please

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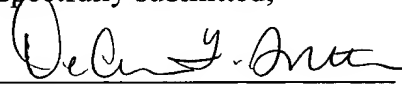
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charge our Deposit Account No. 12-0080, under Order No. UMV-1584 from which the undersigned is authorized to draw.

Dated: September 16, 2002

Respectfully submitted,

By 

DeAnn F. Smith

Registration No.: 36,683

LAHIVE & COCKFIELD, LLP

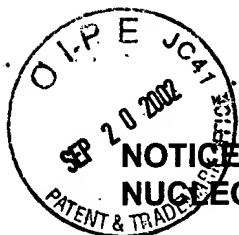
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Attorneys for Applicant



Application No.: 09/357,273

**NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING
NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES**

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 C.F.R. 1.821 - 1.825 for the following reason(s):

- ☐ 1. This application clearly fails to comply with the requirements of 37 C.F.R. 1.821-1.825. Applicant's attention is directed to these regulations, published at 1114 OG 29, May 15, 1990 and at 55 FR 18230, May 1, 1990.
- ☐ 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 C.F.R. 1.821(c).
- ☐ 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 C.F.R. 1.821(e).
- ☐ 4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing."
- ☒ 5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A Substitute computer readable form must be submitted as required by 37 C.F.R. 1.825(d).
- ☐ 6. The paper copy of the "Sequence Listing" is not the same as the computer readable form of the "Sequence Listing" as required by 37 C.F.R. 1.821(e).
- ☐ 7. Other: _____

Applicant Must Provide:

- ☒ An initial or substitute computer readable form (CRF) copy of the "Sequence Listing".
- ☐ An initial or substitute paper copy of the "Sequence Listing", as well as an amendment directing its entry into the specification.
- ☒ A statement that the content of the paper and computer readable copies are the same and, where applicable, **include no new matter**, as required by 37 C.F.R. 1.821(e) or 1.821(f) or 1.821(g) or 1.825(b) or 1.825(d).

For questions regarding compliance to these requirements, please contact:

For Rules Interpretation, call (703) 308-4216
For CRF Submission Help, call (703) 308-4212
PatentIn Software Program Support (SIRA)

Technical Assistance.....703-287-0200
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PLEASE RETURN A COPY OF THIS NOTICE WITH YOUR RESPONSE

FIGURE 1C

H.s.	MPARRLLGLLLLLPGLGIFGSTSTVTLPELLEFVSTIDGSLHGVSKRTGSLKWTLE	58
C.e.	MRATFHLFTFIFLLFSSVICTSTPGFRNDHESIGDDEEKTSSITLVLSTIDGSLRALDSEIGELKWTLE	70
H.s.	EPVLPVPHVPEPA-FLPDNDGSLYILGSKNNEGLIKLPFTIFELVQASPCRSSOGILYMCKKGDIMV	127
C.e.	EPVLRSPSAVKOCFTPLENDGSLYVL--KNSS-LKKLPENIFQLVHASPCKGNDGILYAGSKKQVMEG	137
H.s.	IDLLTGEKQO-----FLSSAFADSLCFST--SLLYLGRTEYITIMYDRIKIRELRWNAT	179
C.e.	IDPKTGLKMEYILLNISDKILFLQVEFLSSASADRICPANQKQITFLGRTEYRVSMEDENRGKTNAT	207
H.s.	FOYAA-SLPEDEGDYKMSHEVSNGDGLVWVDSSEGDVLATONVYASPVVAFYVWOREGLRKMVHINVAE	248
C.e.	NOYSAHLLPE-VNTWPFKHYASSSHCYGLIFDREIGEMRAEODLKQPVVALYLRDEGLAKQPFVEMGKE	276
H.s.	IRYLTFMSGENVGRITKWKYPF--PGEIEAKSKLTPITLVGKYSTSLYASPSNV-HEGVAVVPRGSTLP	314
C.e.	IMENVAKNIFTVDQWPTVLGVNAADEQITSLTNOFFELVGCSSFGLYAIEANVCHOTITYSEKLLGPE	346
H.s.	LLEGPTDCVITIGCKECVITPSTDVIGFDPGLKSKNKLNYLRNYWLLIGHHEITP--SASTKMLERFPNNL	383
C.e.	LLEGPAPIAITEEMKDEYLPFRPITRNIEPSITHK---TSDGEVLLGVDREMTMAITITPTEVPG	413
H.s.	EKHRENVIPADSEKKSFEEVINLVDOTSENAPTIVSRDVEEKPAHAPARPEAPVDSMLKDMATIILSTFL	453
C.e.	EKAIGSTIERPPPOLLGVPSPQKHEDTSFILLLNHNHPIPFYATLVTFALLITVWOCGROWDQOKST	483
H.s.	LIGWVAFTITPTPLSMHQOQLOHQOFQKELEKIQLLQOQOQQLPFHPPGDTAQDGELLDTSGPYSESSGT	523
C.e.	SRMDSFELVNNGESRSASQTSKQSNRGSFGWANRQTEIPEGW-----	525
H.s.	SSPSTSPRASNHSLCSGSSASKAGSSPSLEQDDGDEETSVMIVGKISFCPKDVLGHGAGSTIVRGAFON	593
C.e.	-----MAVGSKLMYSPSDILGIGCESTIVVRGTFDG	556
S.c.	LVVSKKLGVGSSSTIVRGSEFG	696
H.s.	RDVAVKRLPECFSEADREVQLRESDEHPNVIRYECIEKDRGFOYFATELCAATLOEYVECKDFAHLGL	663
C.e.	REVAVKRAVEFVKFAHREADLLRESDIHPNVIRYECMESDSOFRYFATELCTASLNDYVECKEYQONVT	626
S.c.	REVAVKRLTDFCDIALMEIKLITSDHPNVIRYECSEFTDFELYFATELCLNLLODLVESKNVSDENL	766
H.s.	-----EPITELQQTSLAHLHSLNTHRDCKPQNLISMPN-----AHGKIKAMISDFGLCKKLA	719
C.e.	IALRD-----IMQATIGLAHLHASKIVHRDKPQNLIMAS-----QRGEMRAVTSDFGLCKRVQ	693
S.c.	KLQKEYNPISGLQIASGVAHLHSLNTHRDCKPQNLVSTSSRFTADQQTGAENRLISDFGLCKKLD	836
H.s.	VGRHSFSRR--SGVPSTEGWIAPEMLSEDCKEN-----PTYTVDIFS	759
C.e.	PGNSISRGIASGLASTDGIWIAPEMLISAST-----SYFVDIFS	722
S.c.	SGSSFRNLNPS-GTSGWRAPEMLLESNNLQCQVETEHSSSRHTVVSSDSFYDPFTKRRLTRSTIFS	905
H.s.	AGCVFYYWSEGSHPFGKSLORDANILGACSLDCHPEKH--EDVIARELIEKMIAMDPKRPSEANDVL	827
C.e.	LCGVFYYWLSGTHPFGKSLHRDANIVGEYLLNKLADLDD---WSLADPLISSMLNVEPLHRLIADAVL	789
S.c.	MGCVFYYWLSGKHPEFGDKYSRESNIIRGIFSLDEMKCLHDSRLIAEATLISQMDHCPKRPITAKVL	975
H.s.	KHPFFWSLEKSLDFQDVSDRIE--KESLDGPIVKQLERGGRVVKMDWRENITDPLQTELKFRIRYKG	894
C.e.	NHPFFWTSEKSLWFSQDVSDRIE--KEEDNSPWWRIETDARIVVCGGWREKICDALKEDLKRFRIRYKS	856
S.c.	RHPFLWPKSKLELLKVSDRUEIENRPPSALIMKFDAGSDFVIPSGLITVKFDKTFMDNLIRYRKVHS	1045
H.s.	GSVRDLLRAVRNKKHHMRELPAEVRREITSLPDQFVCYFTSRFPFLLAHTYRAMCLCSHERLFQPYFHE	964
C.e.	FSVRDLLRAVRNKKHHMRELPEVROSIGDIPDQFLHYFTSRFPFLLHVVYKATEYCSGEAVFKRYYSDD	926
S.c.	SKVRDLLRAVRNKKHHMRELPEDAELGSPVPLSYDYFTKRFENLLIGVYMIKGENLSDDQILREELYS	1115
H.s.	PPEPQPEVTPDAL	977
C.e.	VRARMYELVEEERVRKKIKEEMANEVWARAPKPVEQRTPLKLDKRNKKSNPNTD	983